

IN THE CLAIMS

Please cancel claims 1-9 without prejudice or disclaimer.

The following is the status of the claims in this application:

1-9 (Cancelled).

10. (Original) A casting apparatus for performing a casting while an oxide film formed on a surface of a molten metal is reduced by allowing the molten metal and a reducing compound to be contacted with each other, comprising:

a molding die having a cavity for receiving the molten metal, a sprue from which the molten metal is poured and a feeder head portion arranged between the sprue and the cavity,

wherein a difference of heat insulation is partially provided between the feeder head portion and the cavity such that the molten metal filled in the cavity and the feeder head portion is sequentially solidified in a direction of from a terminal portion of the cavity to the feeder head portion.

11. (Original) The casting apparatus as set forth in claim 10, wherein the cavity of the molding die comprises a narrow portion arranged halfway between a feeder head portion side inlet thereof which is connected with the feeder head portion and the terminal portion thereof and having a smaller cross-sectional area than the terminal portion;

wherein the feeder head portion and the narrow portion are formed such as to have a higher heat insulating property than the terminal portion.

12. (Original) The casting apparatus as set forth in Claim 11, wherein a part of the molding die defining the feeder head portion is formed by a material that has a higher heat insulating property than a material defining the terminal portion of the cavity.

13. (Original) The casting apparatus as set forth in claim 11, wherein a part of the molding die defining the narrow portion of the cavity is formed by a material that has a higher heat insulating property than a material defining the terminal portion of the cavity.

14. (Original) The casting apparatus as set forth in claim 11, wherein an inner wall surface of at least one of the feeder head portion and the narrow portion of the cavity is subjected to a heat insulating treatment by applying a heat insulating coating agent thereto, and

wherein a surface of an inner wall of the terminal portion of the cavity is free from the heat insulating treatment.

15. (Original) The casting apparatus as set forth in claim 14, wherein the heat insulating coating agent is non-reactive to a reducing compound which contacts the molten metal poured in the cavity.

16. (Original) The casting apparatus as set forth in claim 10, wherein a part of the molding die defining the feeder head portion is constructed such as to be detachable from a cavity portion of the molding die.

17. (Original) The casting apparatus as set forth in claim 10, wherein a part of the molding die defining the feeder head portion forms a molten metal-introducing passage that introduces the molten metal into the feeder head portion, and an introducing passage that introduces raw materials of the reducing compound into the cavity such that the reducing compound is generated in the cavity.

18. (Original) The casting apparatus as set forth in claim 10, wherein the molding die is formed such that a difference of a cooling rate between the molten metal filled in the feeder head portion and the molten metal filled in the terminal portion of the cavity at the time of solidification of the molten metal is set to be 200°C/min or more.